

CLAIMS

1. A sunroof device comprising:

5 a movable panel for closing a roof opening of a vehicle;

a functional bracket for supporting the movable panel;

a guide rail arranged in the roof opening, wherein the guide rail extends from a front side to a rear side of the vehicle;

10 a shoe for moving along the guide rail;

a check member engageable with the shoe, wherein the check member and the shoe are set in one of an engaged state and a disengaged state, the check member moving integrally with the shoe as the shoe moves in the engaged state, the

15 check member and the shoe being separated from each other and the check member being engaged with the guide rail in the disengaged state;

a raising and lowering member for pivotally supporting the check member, wherein the raising and lowering member
20 moves the functional bracket upward or downward in cooperation with movement of the check member in the engaged state; and

an urging member for applying an urging force to the check member, wherein the urging member turns over the check
25 member with the urging force, the sun roof device being characterized in that:

the check member is turned over and set in the disengaged state.

30 2. The sunroof device according to claim 1, characterized in that:

the shoe includes a shoe side engagement portion;

the check member includes a first check block,

pivotally supported by the raising and lowering member, and a second check block, pivotally supported by the first check block and having a check side engagement portion;

in the engaged state, pivoting of the check member is
5 restricted by the guide rail, and the shoe side engagement portion and the check side engagement portion are engaged with each other; and

in the disengaged state, pivoting of the second check block is permitted, and the shoe side engagement portion
10 presses the check side engagement portion and swings the first check block as the shoe moves so that the second check block is rotated and locked to the guide rail.

3. The sunroof device according to claim 2,
15 characterized in that the urging member is arranged between the guide rail and the first check block and presses a pivoting axis of the second check block toward the guide rail so that the second check block is locked to the guide rail.

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4. A sunroof device comprising:

a movable panel for closing a roof opening of a vehicle;

a functional bracket for supporting the movable panel;

25 a guide rail arranged in the roof opening, wherein the guide rail extends from a front side to a rear side of the vehicle;

a shoe for moving along the guide rail;

a check member engageable with the shoe, wherein the
30 check member and the shoe are set in one of an engaged state and a disengaged state, the check member moving integrally with the shoe as the shoe moves in the engaged state, the check member and the shoe being separated from each other

and the check member being engaged with the guide rail in the disengaged state;

a raising and lowering member for pivotally supporting the check member, wherein the raising and lowering member
5 moves the functional bracket upward or downward in cooperation with movement of the check member in the engaged state, the sun roof device being characterized in that:

the check member moves in a direction differing from a direction in which the check member pivots relative to the
10 raising and lowering member so that the check member is set in the disengaged state.

5. The sunroof device according to claim 4, further being characterized by:

15 a guide block fixed to the guide rail, wherein the guide block includes a guide groove extending along the guide rail, with the guide groove including an end portion having a lock recession; and

an urging member for applying an urging force to the
20 check member, wherein the urging member urges the check member toward the guide groove with the urging force;

wherein the shoe has a shoe side engagement portion;

the check member includes a first engagement portion and a second engagement portion;

25 in the engaged state, pivoting of the check member is restricted by the guide rail, and the shoe side engagement portion and the first engagement portion are engaged with each other; and

in the disengaged state, pivoting of the check member
30 is permitted, and the second engagement portion is guided by the guide groove as the shoe moves so that the check member is pivoted, and the urging force of the urging member inserts the second engagement portion in the lock recession.

6. The sunroof device according to claim 5,
characterized in that:

5 the shoe and the check member each have a guide
surface, and the guide surfaces slide as the shoe and the
check member move relative to each other and gradually
insert the second engagement portion in the lock recession.